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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ryuichi Iwamura

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EXAMINER

WONG, ALLEN C

ART UNIT

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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/624,706	Applicant(s) IWAMURA, RYUICHI	
	Examiner Allen Wong	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12 and 14-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 14-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/27/07 have been fully read and considered but they are not persuasive.

The claim objection to claim 43 is withdrawn since the period is removed.

Regarding pages 11-12 of applicant's remarks, specifically the last three lines on page 11 to line 2 on page 12 of applicant's remarks, applicant states that claim 43 is statutory and that it does not matter whether the instructions are stored on a piece of "piece of paper" so long as the medium is computer readable. The examiner respectfully disagrees. There are protocol and regulations as far as what "computer medium" claims are statutory or not, and that simply mentioning a "computer readable medium" is not sufficient enough to meet the statutory requirements (ie. "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The term "having" must be replaced with "encoded with" to clearly imply that the medium is a computer readable medium that executes the executable instructions. Thus, the recommendation is that the preamble of claim 43 be rewritten in this manner as follows: "A computer readable medium encoded with a computer program with executable instructions..." for complying with today's 35 U.S.C. 101 standards. See MPEP 706.03(a).

Regarding the first paragraph on page 13 of applicant's remarks, applicant states that the rejection is traversed, but since the claims are amended to include the "dynamic bandwidth allocation", the rejection under 35 U.S.C. 102(e) is changed to rejection under 35 U.S.C. 103(a) as being unpatentable over Ramirez-Diaz (6,476,858) and Smith (6,757,008).

Regarding lines 11-13 on page 14 of applicant's remarks, applicant asserts that the examiner mischaracterizes the concept of image compression as adaptive dynamic bandwidth allocation. The examiner respectfully disagrees. The concept of MPEG is well known in the art of image compression and that the MPEG is known for using the recursive rate control scheme for dynamic, adaptive adjustment and allocation of the appropriate amount of bits to encode image data in the most accurate, efficient manner. Thus, the use of MPEG video standard is not far-fetched, but in fact, extremely well known in the art efficient, precise image compression, especially in analysis from video image surveillance from interframe coding, ie coding of plural images.

Regarding lines 14-16 and 18-22 on page 14 of applicant's remarks, applicant states that Smith does not meet the deficiencies of Ramirez Diaz. The examiner respectfully disagrees. Ramirez-Diaz does not specifically disclose the "dynamic bandwidth allocations". However, in column 8, lines 23-42, Smith teaches that MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner, where Smith's invention can be applied for implementation in the video image surveillance applications. Smith discloses that video image compression can be utilized for compressing video images obtained from video

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surveillance, and that the MPEG can be applied for dynamically, efficiently and precisely encode the video images. Thus, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance, as disclosed in Smith's column 3, lines 13-29.

Regarding lines 16-18 on page 14 of applicant's remarks, applicant states that Smith does not mention the use of more than one video source. The examiner respectfully disagrees. In column 18, lines 29-35, Smith suggests that the use of multiple camera assemblies or multiple video sources is readily accessible, easily modifiable for one of ordinary skill in the art to implement multiple cameras for accurately obtaining video image surveillance data for clearly ascertaining the monitored scene. Thus, Smith discloses the use of more than one video source.

Regarding lines 3-4, 8-11, 16-18 and 21-23, last line on page 15 to line 5 on page 16, lines 8-11 and 14-16 on page 16 of applicant's remarks about claims 1, 12, 25,

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34, 39, 43 and 44, applicant contends that Smith does not disclose the "dynamic bandwidth allocation". The examiner respectfully disagrees. Ramirez-Diaz does not specifically disclose the "dynamic bandwidth allocations". However, in column 8, lines 23-42, Smith teaches that MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner, where Smith's invention can be applied for implementation in the video image surveillance applications. Smith discloses that video image compression can be utilized for compressing video images obtained from video surveillance, and that the MPEG can be applied for dynamically, efficiently and precisely encode the video images. Thus, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance, as disclosed in Smith's column 3, lines 13-29.

In conclusion, the rejection of the claims is maintained.

Claim Rejections - 35 USC § 101

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35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84; 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 43 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 43 defines "a media that is computer readable and includes a computer program which, when executed by a controller for a video device..." embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the

medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed a media that is computer readable and includes "a computer program which, when executed by a controller for a video device..." can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure. See MPEP 706.03(a).

To avoid potential problems with 35 U.S.C. 101, claim 43 should be written as "a computer-readable medium encoded with computer executable instructions for using a digital camera system..."

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-12 and 14-44 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramirez-Diaz (6,476,858) and Smith (6,757,008).

Regarding claim 1, Ramirez-Diaz discloses a system for providing area surveillance, comprising:

at least one video imaging device configured for transmitting a video data stream over an AC power-line (fig.7, elements 4a-4x are the imaging devices and col.5, ln.58-65);

a video display interface device (fig.7, element 5a has a display for viewing); and means for receiving said video data stream from said AC power-line and controlling presentation of said received video data stream as passed to said video display interface device for storage or presentation to a user (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose means for dynamically allocating bandwidth over said AC power-line for said video imaging devices. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Note claims 3-7 and 10-11 have similar corresponding elements.

Regarding claim 8, Ramirez-Diaz discloses data storage device (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream).

Regarding claim 9, Ramirez-Diaz discloses a computer server (fig.7, element 3b).

Regarding claim 12, Ramirez-Diaz discloses a system for providing area surveillance, comprising:

at least one video imaging device connected to an AC power-line and configured for generating a video data stream of an area under surveillance (fig.7, elements 4a-4x are the imaging devices and col.5, ln.58-65);

a computer server connected to said AC power-line and configured for receiving said video data stream and communicating said video data stream to a display device according to user preferences (fig.7, element 3b is a computer server, the display device at element 5a can be used for viewing);

a data storage device coupled to said computer server configured for storing portions of said video data stream (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream); and

a user interface within said computer server configured for capturing user preferences for controlling the collection and display of said video data streams (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as

passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose wherein said computer server is configured to dynamically allocate bandwidth for video imaging devices in response to predetermined or event-driven bandwidth settings. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Note claims 13-16 and 23-24 have similar corresponding elements.

Regarding claims 17 and 19-22, Ramirez-Diaz discloses wireless communication (fig.7, note "remote console" is used).

Regarding claim 18, Ramirez-Diaz discloses wired connection (fig.8A, note coaxial cable is used).

Regarding claim 25, Ramirez-Diaz discloses an apparatus for imaging an area under video surveillance, comprising:

an image sensor (fig.7, element 4a);

a communications interface configured for communicating over an AC power-line with a server, and video signals from said image sensor are transmitted to said server.

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(fig.7, element 3b is a server that receives video data obtained from element 4a, and that element 5a is a communications interface).

Ramirez-Diaz does not specifically disclose the dynamic bandwidth allocations are received from said server, and video signals from said image sensor subject to said dynamic bandwidth allocation is transmitted to said server. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Note claims 2-7, 10 and 26-30 and 32-33 have similar corresponding elements.

Regarding claim 31, Ramirez-Diaz discloses motion sensors (col.5, ln.33-42).

Regarding claim 34, Ramirez-Diaz discloses an apparatus for monitoring and controlling video surveillance, comprising:

a power-line interface configured for communicating over an AC power-line with remote video imaging devices (fig.7, element 5a);

a user interface configured for capturing user preferences for controlling the collection and display of said video streams (fig.7, element 2a); and

a computer server configured for allocating bandwidth to remote video imaging devices and receiving video streams, said computer server also configured to

communicate said video streams for storage and/or display in response to said user preferences (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose the dynamic bandwidth allocations are received from said server, and video signals from said image sensor subject to said dynamic bandwidth allocation is transmitted to said server. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Note claims 35-36 have similar corresponding elements.

Regarding claims 37-38, Ramirez-Diaz discloses transmission and reception of television video signals (col.3, ln.37-39).

Regarding claim 39, Ramirez-Diaz discloses an apparatus for controlling video surveillance, comprising:

a power-line interface configured for receiving video data streams from video imaging devices connected to said power-line interface (fig.7, element 5a);

a computer configured for communicating said video data streams to a display device (fig.7, element 2a); and

programming executable on said computer for, interacting with a user for controlling the receipt and display of said video data streams (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz discloses the displaying of multiple images from multiple streams (fig.7, note 5a is an interface that can display multiple video image streams as shown in fig.3). Ramirez-Diaz does not specifically disclose controlling the bandwidth of said video data streams generated by said video imaging devices when multiple video imaging devices are active. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for controlled transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Note claims 40-42 have similar corresponding elements.

Regarding claim 43, Ramirez-Diaz discloses a media that is computer readable and includes a computer program which, when executed by a controller for a video device capable of receiving video streams over a power-line communication network and of outputting video streams to a display device, causes the controller to perform the steps comprising:

interacting with a user for controlling the receipt and display of said video data streams (fig.7, element 2a can be used to interact with a user at element 5a); and

communicating selected portions of said video signals from said video device to a display device connected to said video device (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose controlling the bandwidth of said video data streams generated by said video imaging devices. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for controlled transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Regarding claim 44, Ramirez-Diaz discloses a method of providing area surveillance, comprising:

generating video signals in response to video surveillance of one or more areas (fig.7, elements 4a-4x obtains video image signals and generates video signals to a computer 2a);

communicating said video signals over an AC power line (fig.7, element 3b is a computer server, the display device at element 5a can be used for viewing);

receiving said video signals within a computer server connected to said AC power line (fig.7, element 5b is considered to be one of many data storage devices that is interactively connected to the computer server 3b for storing portions of the video data stream); and

communicating selected portions of said video signals from said computer server to a display in response to predetermined or event driven criterion (fig.7, note element 1a receives the video data stream and that element 2a is the interface that can control the presentation, ie. user preferences, of the received video data stream as passed to the video display interface at element 5a for storage or presentation to the user at element 5a).

Ramirez-Diaz does not specifically disclose dynamic bandwidth allocation. However, Smith teaches the use of MPEG compression/decompression that applies the dynamic bandwidth allocation for controlled transmission of video data (col.8, ln.23-42; MPEG compression utilizes adaptive dynamic bandwidth allocation for encoding video image data in an efficient manner). Therefore, it would have been obvious to

one of ordinary skill in the art to combine the teachings of Ramirez-Diaz and Smith, as a whole, for accurately, efficiently encode image data in a high quality manner so as to provide precise video surveillance (col.3, ln.13-29).

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Allen Wong
Primary Examiner
Art Unit 2621

AW
6/4/07